OSU EXTENSION
MASTER CATTLEMAN

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## Economic Impacts of New World Screwworm

*Derrell S. Peel, Oklahoma State University Extension Livestock Marketing Specialist*

The shoe has finally dropped. For many months producers and markets have operated under the threat of New World Screwworm (NWS) coming into the U.S. Now that it's here, we can get on with the reality of dealing with it. The psychological impact has been mostly one of relief, especially in futures markets. The arrival of NWS has been one of many sources of uncertainty hanging over cattle markets for months. Confirmation of NWS in the country removes one source of uncertainty and allows the market to focus on the reality, which has largely been priced into the market

NWS will be costly and a management headache for affected producers and those nearby, along with industry and agency folks tasked with controlling and eradicating the pest. Time spent planning and anticipating an outbreak now shifts to actions. It will take significant efforts and dollars to ensure a perimeter around the outbreak and effective animal movement controls to contain the pest along with diligent monitoring and treatment of any affected animals. It is uncertain at this point how large a region might be involved in this outbreak. Limited availability of sterile flies will continue to hamper containment efforts until such time as additional sterile fly production can be brought online.

Like most disasters, the impacts of NWS will be primarily local. Much like disasters such as wildfires, tornados or winter storms, those producers directly affected will endure significant additional costs along with increased monitoring by nearby producers on the front lines. While disasters represent big impacts on producers directly impacted, typically the impacts are not widespread enough to have broader market impacts. Thus, like most disasters, NWS is not expected to have significant general impacts on cattle and beef markets. NWS will affect relatively few animals and is not something that will affect the cattle supply or beef production. It also is not a food safety issue and there are no impacts on meat. Beef market supply and demand fundamentals are not affected, and no significant market impacts are anticipated.

Additionally, no major trade impacts are warranted or expected relative to NWS. However, the reaction of trade partners is unpredictable. Canada has announced a temporary ban on livestock from Texas. This is seen as a largely symbolic political move as it will affect a very small volume of trade. Although there is significant bilateral cattle trade between Canada and the U.S., very few Texas cattle are typically involved. Canada is well north of the climate boundary for NWS and the threat is minimal. Mexico has also closed the border to shipments of U.S. livestock into Mexico. With NWS now in both countries, there will no doubt be discussions between officials on both sides about whether the border should remain closed in both directions.

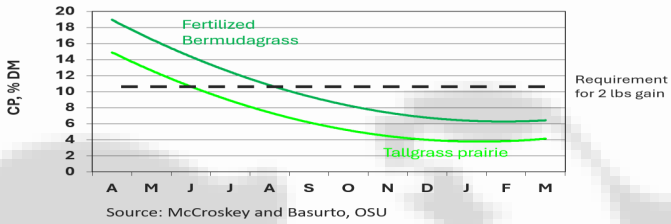
The continued closure of the Mexican border is another part of the market uncertainty about NWS. It is uncertain if the fact of NWS in the U.S. will change political decisions regarding the status of border. The market will continue to wait for news about when the border might open. Once again, the impacts are more related to the uncertainty than the reality. When it happens, opening the border will likely be a deliberate and relatively slow process. Over time, Mexican cattle flows into the U.S. may rebuild with marginal impacts on feeder cattle supplies in the country but no immediate disruptive shocks to cattle markets are anticipated.

# Is it Time to Begin Late-Summer Protein Supplementation?

*David Lalman, Oklahoma State University Animal Science Department*

As we move through July and August, forage quality across Oklahoma's tallgrass and midgrass prairie rangelands and bermudagrass pastures decline. Assuming adequate forage availability, forage quality becomes the primary factor limiting cattle performance.

Grazing studies have documented substantial declines in both crude protein concentration and digestibility as summer progresses. Native range crude protein commonly falls from approximately 15% in the spring to 7% by late summer and continues declining into fall. Consider that a 650 lb. steer gaining 2 lbs. per day requires a diet with about 11% protein.



Source: McCroskey and Basurto, OSU

When forage quality declines, cattle performance becomes limited by protein, energy, or both. In many late-summer grazing situations, protein is the first limiting nutrient. Rumen microbes require adequate protein to efficiently digest forage fiber. When protein becomes deficient, forage digestion slows, forage intake declines, and animal performance suffers. Therefore, in Oklahoma grazing systems when dietary protein drops below 11%, protein intake is the primary factor limiting the animals' rate of gain.

Fertilized bermudagrass follows a similar pattern, although the protein concentration is higher initially, and remains higher throughout the grazing season. The point in time that protein becomes the limiting dietary factor is certainly influenced by stocking rate and grazing management. While both forage species can be expected to fall below growing cattle's protein requirement, that point in time may occur as much as 60 days later in bermudagrass grazing systems.

Numerous Oklahoma studies have demonstrated that relatively small amounts of protein supplement can substantially improve performance of growing cattle grazing native pasture during late summer. Across several trials, stocker cattle receiving approximately one pound per day of a high-protein (30 to 38%) supplement gained an average of 0.37 lb more per day than unsupplemented cattle. These responses occurred because forage protein concentration was the first limiting nutrient and filling the gap between protein supply and the animal's requirement increased forage intake and digestibility.

Research has consistently shown additional improvements in rate of gain by including an ionophore; a feed additive such as Rumensin® (monensin) or Bovatec® (lasalocid). Ionophores alter rumen fermentation in ways that improve feed efficiency and increase the amount of useful energy cattle obtain from forage. Research conducted in Oklahoma and summarized in recent meta-analyses indicates ionophores typically increase gains by an additional 0.13 to 0.28 lb per day. Combined with protein supplementation, total improvements in average daily gain commonly range from 0.5 to 0.6 lb per day.

These responses are especially attractive because supplement efficiency is generally favorable. In many Oklahoma grazing trials, less than two pounds of supplement were required to generate one pound of additional gain. Few management practices consistently provide that level of return on investment.

The benefits of ionophores extend beyond weight gain. A recent meta-analysis conducted at Oklahoma State University evaluated results from 18 studies involving replacement heifers and 21 studies involving mature beef cows. Across studies, ionophore supplementation improved average daily gain while reducing feed intake, indicating improved efficiency of forage utilization.

For replacement heifers, the ionophore Rumensin increased the proportion of females cycling before the breeding season by nearly 16 percentage units and reduced age at puberty by approximately nine days. In mature cows, monensin reduced the interval to first estrus by approximately 18 days and increased the percentage of cows exhibiting estrus before the breeding season by 19 percentage units.

Interestingly, these improvements in reproductive readiness occurred despite little evidence for increased pregnancy rates. Nevertheless, earlier puberty and a greater proportion of females cycling at the start of the breeding season are generally considered favorable outcomes because they increase opportunities for conception early in the breeding season.

Taken together, available research suggests that a modest amount of protein supplement combined with an ionophore can improve forage utilization, increase average daily gain by approximately one-half pound per day, and enhance reproductive preparedness in both developing heifers and mature cows. Few nutritional technologies have demonstrated such consistent benefits across a wide range of forage-based production systems.

## Is it Time to Begin Late-Summer Protein Supplementation? (cont)

**References:**

Gadberry, S., P.A. Beck, M. Moore. F.J. White, S. Linneen, and D.L. Lalman. 2022. Meta-analysis of the effects of monensin on performance of beef replacement heifers and beef cows. Trans. Anim. Sci. 6: 1 – 9. https://doi.org/10.1093/tas/txac086

Gadberry, S., D.L. Lalman, F. J. White, S. Linneen, and P. A. Beck. 2022. Meta-analysis of the effects of monensin on growth and bloat of growing beef calves on pasture. Transl. Anim. Sci. 6: txac031 https://doi.org/10.1093/tas/txac031

## OSU Extension Educators on the Offensive with Eastern Redcedar Control

*Dana Zook, Area Livestock Specialist, Enid*
*Garren Bastin, Graduate Research Assistant, OSU Natural Resource Ecology & Management*

In Oklahoma, there are areas where Eastern Redcedar dominates the rangeland. In fact, tree cover in Oklahoma has increased from 12.1% in 1986 to 27.2% in 2025. That is an increase of 15.1% statewide in 39 years. This encompasses all tree species, however the E. Redcedar has a big role to play in that number. Did you know that a single mature female E. Redcedar tree produces 1.5 million seeds each year? That number of trees each producing a seed bank of that level has caused exponential growth across our state. However, their impact is not going unnoticed. State Legislation through the Terry Peach Watershed Restoration Act along with new cost share programs from the Natural Resources Conservation Service (NRCS), Oklahoma Conservation Commission (OCC), and others have lit the match and caught interest of landowners across the state.

This year, Extension Educators in Northwest Oklahoma contributed to education of E. Redcedar management. Educators from Woods, Grant and Kay Counties each hosted a program fondly deemed a "Cedar Rodeo". In these programs, Extension partnered with landowners to showcase strategies to manage E. Redcedar including mechanical control, chemical strategies and prescribed fire. Each program showcased a morning informational session on herbicide and prescribed fire management. Our afternoon program featured demonstrations for mechanical control, showcasing local equipment dealers and operators that have machines in the area. Participants were also able to see impacts of herbicide on trees that were treated in the fall of 2025.

A few chemical control strategies highlighted at the Cedar Rodeo event included the use of soil-applied herbicides for eastern redcedar management, such as Velpar L and Pronone Power Pellets, both of which contain hexazinone as the active ingredient. Results showed that liquid Velpar L was an effective option when applied undiluted at multiple locations within the tree dripline on the upslope side of each tree. Trees smaller than 8 feet responded exceptionally well, with an average browning of about 96% 10 months after treatment, whereas larger trees required higher application rates to achieve acceptable control. Soil type and moisture appeared to influence results, with enough rainfall needed for root uptake and excessive moisture potentially increasing herbicide movement and reducing treatment precision. Pronone Power Pellets offer another soil-applied option: convenient tablet applications around the base of individual trees, making them well-suited for scattered trees and difficult-to-access areas. Together, these herbicides provide useful tools for managing eastern redcedar along fence lines or in locations where prescribed fire or mechanical removal is difficult, while complementing those practices as part of an integrated eastern redcedar management strategy.

No individual tool or management strategy will be successful on its own, each being an essential tool in the toolbox of E. Redcedar control. We will never be rid of this nasty tree, but Oklahoma is on the offensive. I challenge producers to reach out to their OSU County Extension Educator for more information about our Cedar Rodeos and the impacts of some management strategies we showcased.

# *New World Screwworm Update*

*Jonathan A. Cammack, Assistant Professor & State Extension Specialist for Livestock Entomology and Parasitology, Department of Entomology & Plant Pathology*

**Disclaimer: The information contained below is current as of 4:00 PM on Wednesday, June 17th.**

On Wednesday June 3rd, 2026, USDA confirmed that New World screwworms, *Cochliomyia hominivorax* (Coquerel), were found infesting the umbilicus of a calf in Zavala County in Texas. This marked the first time since 1982 that New World screwworms have been found in Texas, and was the first domestic case resulting from the current outbreak that began in 2023. Since that initial case in Zavala County, infested animals have now been found in five additional counties in Texas and one county in New Mexico. Impacted species include cattle, goats, sheep, and a dog (Figure 1). The total number of cases in the United States is twelve, with no new detections occurring since June 12th.

**At this time, New World screwworms are not present in Oklahoma.**

Figure 1. New World screwworm detections in the United States, including county, species impacted, and number of cases per species. Data are current as of 4:00 PM on Wednesday, June 17th, 2026. Data are from the USDA New World screwworm Detections Dashboard, which can be accessed at www.screwworm.gov.

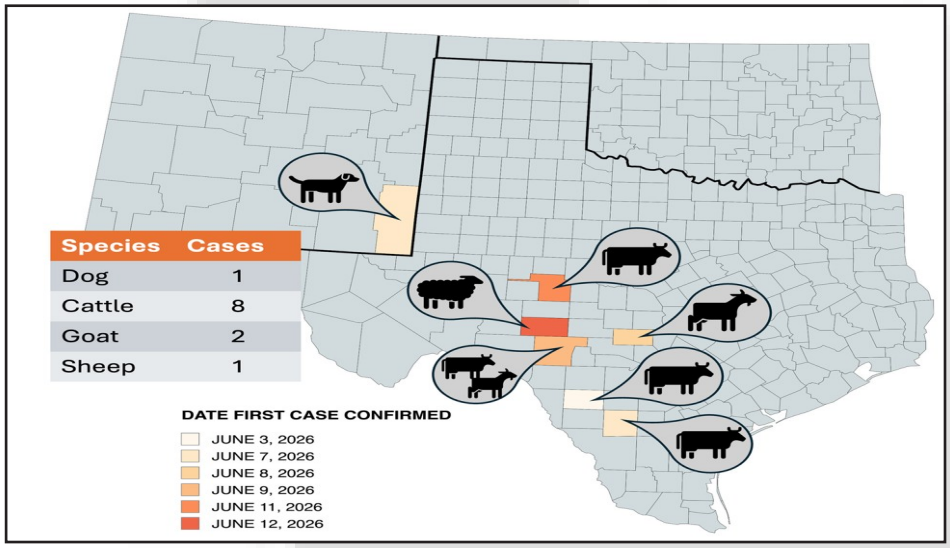



Figure 1

Although Oklahoma cattle (and other livestock, pets, and wildlife in the state) are currently not impacted by New World screwworms, being prepared, and knowing what factors can contribute to an infestation are critical. The most important step in this process is wound prevention and management on animals. New World screwworms require an infected natural body opening or an open wound on an animal around which to lay their eggs; this wound can be as small as a horn fly or tick bite, as large as a cut or scrape, or the unhealed umbilicus of a newborn/young animal. Reducing the number of fly and tick bites can be achieved through proper pest management, and it's not too late to implement a horn fly management plan. The management of larger wounds can be achieved through regular and frequent monitoring and inspection of animals. Daily monitoring and inspection of livestock is preferred, but animals should be inspected at least twice weekly. As I say in many of my Extension presentations: Our cows aren't walking around with Neosporin and Band-Aids, so it's up to us to provide that wound treatment for them. Noticing a wound early, and providing treatment so that it heals quickly, will help reduce the risk of a New World screwworm infestation. Additionally, if you notice multiple animals within your herd with the same wound in the same location: identify the source. Rusted and/or broken hay rings, feed troughs, creep feeders, and other items and equipment in your pastures can all cause scrapes and cuts if animals rub up against them.

Regular and frequent monitoring of animals, and subsequent wound care, will become increasingly more important as New World screwworms continue to move northward. Getting into practice now of frequently checking your animals for wounds and treating those wounds will go a long way to help stop the spread of screwworms. However, if during your monitoring, you notice a living animal with a wound infested with fly larvae (maggots), contact your county Extension office or veterinarian immediately. For additional resources, and the most up-to-date information, visit screwworm.okstate.edu.

# The Market Value of Extended Weaning Periods

*Kellie Curry Raper, Livestock Marketing Specialist, and Amadeo F. Panyi, Former Graduate Research Assistant*

The weaning period for beef calves prior to them leaving your place for the next production phase is a critical time that strengthens their future performance in terms of health, gains, and production efficiency. Calves are usually considered "weaned" if they have been off the cow for at least 30 days. With respect to longer weaning, research has suggested that calves weaned for a minimum of 45 days before shipping have significantly fewer cases of bovine respiratory disease (BRD) and lower death loss rates than calves weaned for shorter periods. The benefits continue through the rest of the supply chain. The market has historically rewarded producers selling weaned calves with market premiums as compared to similar unweaned calves. But how do those premiums change if producers choose extended weaning periods?

A recent OSU study looked at this question using Oklahoma feeder cattle data collected at multiple auctions during 2020-2022. In addition to noting whether calves were weaned or unweaned, OSU Extension personnel documented how long those cattle had been weaned, as communicated from the auctioneer to buyers at the auction. Figure 1 illustrates the estimated weaning premium by 15-day increments as compared to otherwise similar unweaned cattle with respect to physical characteristics and management characteristics at those auctions. The premiums reported here are each relative to lots with calves weaned 0-29 days, as most cattle buyers consider those calves to be unweaned.

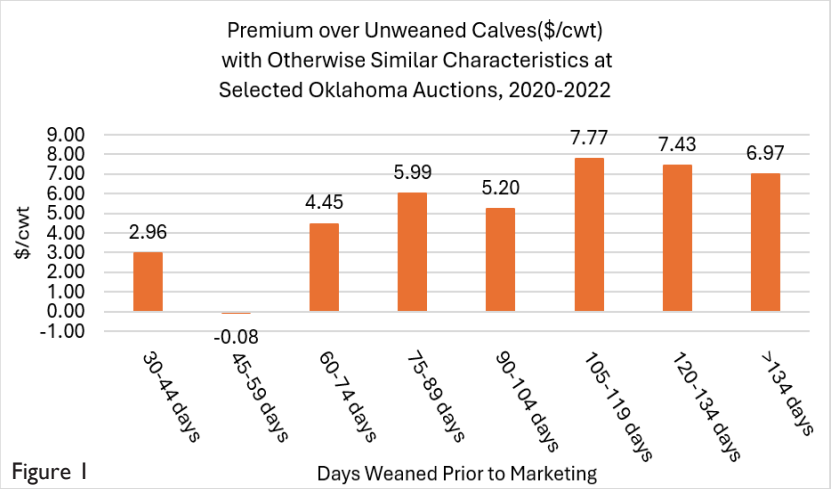



Figure 1

An unexpected result in this data set is that calves weaned 45–59 days prior to sale did not receive prices that were statistically different from unweaned calves; that is, there was zero premium in this data set for those cattle. Aside from that, weaning premiums do generally increase as weaning length increases, with premiums ranging from $2.96/cwt for 30-44 days to $7.77/cwt for 105-119 days. Statistically speaking, the premiums from 60 days weaned to 104 days weaned are similar levels per hundred weight. Then, estimated weaning premiums take another jump up at 105 days, with premiums at similar levels through the >134 days category. Overall, the results indicate a generally positive relationship between weaning period length and feeder cattle prices in Oklahoma.

Why higher premiums for longer weaning periods? The premiums reflect buyer preferences for lower health and performance risks. Longer weaning periods provide more time for calves to recover from weaning stress, more time to develop stronger immune systems, and more time for feed bunk training. It is consistent with anecdotal indications from cattle buyers that longer weaning periods are a valuable way to manage health risks of purchased calves, especially for fall sales as weather fluctuations increase immune system stressors. While the standard weaning protocol in preconditioning programs has typically been 45 days, some programs have moved to 60-day minimum weaning protocols. Results here suggest that the market encourages that move and beyond. The stability of weaning premiums beyond 105 days suggest little additional effect on calf health risk beyond that.

Keep in mind that these estimates are revenue estimates only and do not consider the associated costs for holding calves on the ranch longer. As with any management decision, pencil out the expected increase in revenue and the expected costs incurred as you consider alternatives.

## Breeding Season

*Brian Freking, Southeast Area Livestock Specialist*

A successful breeding season starts with the decisions you make before it starts. Currently, my breeding season for my cow herd starts with an artificial insemination date followed by a clean-up bull program of 64 days for cows and 45 days for heifers. This plan allows for a defined calving season and identifies reproductively efficient cows.

Reviewing what prebreeding vaccinations that fit your operation should be a conversation with your veterinarian on an annual basis. A good vaccination protocol is essential to maintaining herd health and preparing for a successful breeding season.

It is never a bad thing to ask an outside opinion about body condition of the cowherd whether that is with your veterinarian or local county extension educator. Ensuring all cattle are meeting their nutritional needs is an essential step to having a successful breeding season. Do not forget the bull. They need to be in good condition to travel long distances to breed, feed and water. Sperm quality and quantity can be impacted by poor nutrition.

Bull breeding soundness exam (BSE) should be conducted 30 to 60 days prior to the beginning of each breeding season. So, if you have a Fall and Spring calving season you should have at least two BSE exams. It might also be advisable to conduct a BSE at the end of the 60-day breeding season to know if issues occurred since sperm production cycle is around 60 days. Closely monitor bulls at the start of the breeding season for injury and to make sure they are aggressively covering cows.

Records during this time are particularly important to record current inventories of cows exposed to a bull (Cow-calf herd Age Distribution Calculator). Reproduction is one of the most important traits we can select for profitability. Knowing the age distribution of your cowherd might provide valuable insight into challenges that might show up at pregnancy check time. Those three-year-olds may need different management?

Make and evaluate important production calculations:

- Percent pregnant
- Calving distribution (1st cycle %, 2nd cycle %, 3rd cycle %)
- Pounds weaned per cow exposed.

Breeding checklists are a great way to stay organized and evaluate progress being made in your herd. Following this with record evaluation allows producers to make informed production decisions.

## Reiterating the Importance of Record-Keeping

*Kelllie Curry Raper, Livestock Marketing Economist*

Records. Win-Loss records. Personal best records. Guiness World Records for…well, for.nearly anything. Fun fact: My cousin once held the Guiness World Record for the World's Heaviest Chile Pepper and held that record for several years. He has since been dethroned, but still….

We humans love a good "record" story. But we don't always love *keeping good records. This is true of a lot of cattle producers. But good records play a crucial role in cattle production.*

*Good record-keeping is another input into your operation.* A good set of production and management records can enhance decision making by providing production benchmarks and by documenting the impact of management decisions, whether those decisions are related to herd replacements, animal health, reproduction, forage, or calf management. In the case of animal health records, tracking vaccinations and medical treatments helps document individual animal health, helps prevent duplication of treatment, and may also sometimes serve as a marketing tool. In the big picture, good records on the physical

## Reiterating the Importance of Record-Keeping (cont.)

performance impact of decisions will help you see what is and isn't working over time.

*Good record keeping is good business*. Cattle production can be a lifestyle, but it is also a business. The long-term sustainability of beef operations depends on being efficient and profitable. Tracking the physical performance impacts of management decisions is also the first step in tracking the economic impacts of those decisions. Some of those impacts are evident right away , while others take time to see. But good records are essential in both cases. It is important to take the next step of translating physical performance impacts into cost and profitability impacts for your operation. This feedback should be on a continuous loop!

*Good record keeping helps others help you.* Good records facilitate loan applications and financial reporting to loan officers and financial institutions. They are also key in the ability to gather information quickly and efficiently for government program paperwork or disaster relief applications with short deadlines.

*Good record keeping can help you learn from others*. Good records make benchmarking possible. That is, good records allow you to seek out information on operations similar to yours and compare physical performance, costs, and other important measures. These comparisons give you feedback on the effectiveness of your current management and are useful for goal setting and reassessment – an important practice for any successful business.

Extension personnel regularly promote the importance of specific management practices to producers, including record keeping, to improve cow-calf decision making and – ultimately - profitability, Management practices typically promoted for the cow-calf phase of beef production are those that positively affect health and performance in subsequent phases of production, that document information such as age, origin, feed ingredients, or medical treatments for use in herd management decisions, or that meet needs for specific marketing strategies. Recommended record-keeping practices generally include financial, production, and herd health records. And don't forget forage as part of your production input record keeping!

The ability to examine the impact of calf health management practices is dependent on good records, including vaccination and medical records. Medical treatment records involve documenting dates, products and types of medical treatments administered to animals, number of animals treated, and the person who administered treatment. Ideally, records are also linked to a specific animal. These health records can aid in tracking the effectiveness of specific treatment protocols or vaccination types across the herd, in addition to documenting treatment frequency for specific animals – all useful information for both short term and long term herd management strategies. What worked? What didn't? Were treatments more frequent this year than in past years? Although it is difficult to assign a particular value to record keeping, its contribution to management is an important one.

Why don't producers keep medical and vaccination records? The two most cited reasons in the Oklahoma Beef Management and Marketing survey were doubts about the economic value of those records and uncertainty about how to go about it. As an economist, I'm trained to assign value to action (or inaction) whenever possible. While it proves difficult to assign a specific dollar value to the habit of good record keeping, there is no doubt that it makes an important contribution to your operation. As for how to go about it, there are tremendous resources online – and some even include a printable "record book" if you prefer paper. Record keeping is a critical task. So, grab a notebook or a computer and get started!

*Knowledge is power*. What useful information are you missing out on that might improve decision making – and ultimately the bottom line? What can you learn from comparing your operation's data to others? Good record-keeping can enable a mindset and culture of continuous improvement.

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## OSU Extension Resources

**A Beef Cattle Producer's Guide to Castration Methods**
By Paul Beck, Paul Vining, and Kellie Curry Raper
AFS 3176, March 2026
https://extension.okstate.edu/fact-sheets/a-beef-cattle-producers-guide-to-castration-methods

**Working with Livestock During Pregnancy**
By Riley Messman and Josie Hayes
AFS-3360, October 2025
https://extension.okstate.edu/fact-sheets/working-with-livestock-during-pregnancy

**Federal Programs for Beef Cattle Producer Wildfire Recovery**
By Amy Hagerman
AGEC-281, March 2025
https://extension.okstate.edu/fact-sheets/federal-programs-for-beef-cattle-producer-wildfire-recovery

**Rancher's Thursday Lunchtime Series Archive**
https://extension.okstate.edu/programs/beef-extension/ranchers-thursday-lunchtime-series

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